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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,760	09/23/2002	Gerhard Schwarz	08215-517US1	3697

7590 12/30/2003
John F Hayden
Fish & Richardson
1425 K Street N W 11Th Floor
Washington, DC 20005-3500

EXAMINER

NGUYEN, PHUONGCHI T

ART UNIT PAPER NUMBER

2833

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/069,760	SCHWARZ ET AL.	
	Examiner	Art Unit	
	Phuongchi Nguyen	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14 and 23 is/are rejected.
- 7) ☒ Claim(s) 11, 15-22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment of December 03, 2003 is acknowledged. The proposed drawings and the specification have been approved. Claim 1 is amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of AAPA of Fan et al (US5386486).

In regard to claim 1, Fan et al a plug connector (figure 4) comprising: a plug (14), a socket (12) including at least a housing (16) and a socket insert (44) supported in the housing (16) such that the socket insert (44) is rotatable between first (unmovable) position and second (movable) position, the socket insert (44) being adapted to be rotated between its positions by means of the plug (14) inserted in the socket (12), and a locking element (48) supported in the socket insert (44) such that the locking element (48) is displaceable between a locking position (column 6, lines 2-6) and a release position (column 6, lines 29-31), the locking element (48) being provided with at least one projection (end of 52) which, in the condition in which the (pin of) plug (14) is inserted in the socket insert (44), is adapted to be arranged in a complementary aperture (50) in the plug (14) thus arranging the locking means (54) at its release position (column 6, lines 29-31), wherein the socket insert (44) is rotatable between the first position (unmovable position) and second position (moveable position) when the locking means (54) is in the release position (when pin 48 rotated, the socket insert will move relative to the pin 48). Fan

et al's connector is not an electric plug connector. However, AAPA of Fan et al teaches a connector for fiber can be an electrical connector or electrical contact (column 1, lines 22-25). It would have been obvious to one having ordinary skill at the time the invention was made to change the connector of Fan et al to be an electrical connector as taught by AAPA of Fan et al for having a variety connectors when the user needed. The fiber connector taught by Fan et al is not specifically for an explosion-proof areas; however, it is used in any environment, it would have been obvious to one having ordinary skill at the invention was made to provide the connector of Fan et al such as an electrical connector for an explosion-proof areas.

In regard to claim 2, Fan et al a plug connector (figure 4) wherein the locking element (48) is implemented as a locking pin (48) which is supported in the socket insert (44) such that it is longitudinally displaceable between the locking and release positions (column 6, lines 2-6 and 29-31) essentially in the plug-in direction of the plug (14).

In regard to claim 3, Fan et al discloses (figure 4) in a release position (unlock position), the locking pin (48) projects with one of its ends as a projection beyond the socket insert (12) in the direction of the plug (14).

In regard to claim 4, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) has a force (created by a spring 56) applied thereto in the direction of the release position.

In regard to claim 5, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) is arranged essentially centrally in the socket insert (44).

In regard to claim 6, Fan et al discloses (figure 4) the plug connector wherein the projection (52) is implemented such that its cross-section is complementary to the cross-section of the aperture (50).

In regard to claim 23, Fan et al discloses (figure 4) the plug connector wherein the projection (52) has an angular cross-section.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of A.L.Nelson (US3525068).

In regards to claim 7, Fan et al discloses the invention, but lacks a longitudinal guide means on the socket insert for the locking pin. However, Nelson teaches (figure 1) the plug connector wherein the socket insert (29) is provided with a longitudinal guide means (a groove at the aperture 34 of 29, and for fitting on 38 of 11) for the locking pin (27), the cross-section of the longitudinal guide means (the groove at 34) being substantially equal to the cross-section of the projection (38). It would have been obvious to one having ordinary skill at the time the invention was made to modify the socket insert of Fan et al by providing a longitudinal guide means as taught by Nelson for having an access to let the locking pin be inserted in locking and release positions.

In regards to claim 8, Fan et al further discloses the plug connector wherein reception holes (43) for contact pin bushings (42) are arranged around the longitudinal bore (46) in the socket insert (44). Fan et al lacks a longitudinal guide means in the socket insert.

In regard to claim 9, Fan et al discloses (figure 4) the plug connector wherein the locking pin (48) projects with its lower end (61) located opposite the plug (14) and is provided with a stop (surfaces of 61) which is adapted to be brought into contact with a lower end of the slot (54).

In regard to claim 10, Fan et al discloses (figure 4) the plug connector wherein the stop (surface of 61) is implemented as an upper end of an end sleeve of the locking pin (48) which is open at the bottom (side of 44, facing to 14), the end sleeve being adapted to accommodate at

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least part of a spring (56) for applying a force to the locking pin (48) in the direction of the locking-pin release position.

5. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al (US5386486) in view of A.L.Nelson (US3525068) applied as claim 8 above, and further in view of Hermann, Jr. (US4193655).

In regard to claim 12, Fan et al discloses the invention, but lacks an annular element. However, Herrmann, Jr. teaches the plug connector wherein the socket insert (18) is supported in an annular element (126) at least in the lower end section thereof, the socket insert (18) being adapted to be inserted together with the annular element (126) in a plug housing (134) (figures 1 and 3) and the annular element (126). It would have been obvious to one having ordinary skill at the time the invention was made to modify the socket insert of Fan et al by providing an annular element as taught by Hermann for securing the socket insert at the lower end in the housing connector during assembly.

In regard to claim 13, Fan et al discloses the socket insert (14) and the plug housing (of 14) are (released) flush with one another at their respective lower ends facing the housing (of 14) and project partially into a housing aperture (opening of 14, adjacent 40) in the housing (of 14).

In regard to claim 14, Fan et al discloses a plug connector wherein the plug housing (of 14) is provided with a circumferentially extending edge flange (adjacent 14, in figure 4) (figure 1), which is secured to an edge of the housing aperture (opening of 14, adjacent 40).

Allowable Subject Matter

6. Claims 11, 15-22 and 24-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 11, the prior art fails to teach or suggest the plug connector wherein a centering pin is arranged centrally in the end sleeve, at least part of the spring being adapted to be pushed onto the centering pin and combine all limitation of all claims above.

In regard to claim 15, the prior art fails to teach or suggest the plug connector wherein a diskshaped switching means comprising at least one fastening disk and one switching disk which are rotatable relative to one another and disposable at two locking positions and supporting the contact pin bushings.

Reponses to Arguments

8. Applicant argues that "Fan does not describe or suggest a socket insert that is rotateable between first and second position" is not deemed persuasive. Fan et al discloses that the socket insert 44 is rotatable from first (unmovable) position to and second (moveable) position as shown in figures 1 and 5. The first (unmovable) position is the position where the socket insert 44 is firstly engaged in the plug 14, and the second (moveable) position is the position where the socket insert 44 is secondly rotated relatively with the plug 14 in the socket 12.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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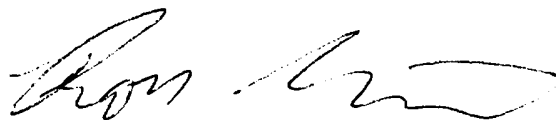
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is 703-305-0729. The examiner can normally be reached on 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 703-308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8359 for regular communications and 703-746-8359 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0729.

December 19, 2003.

A handwritten signature in black ink, appearing to read "Phuongchi Nguyen", with a stylized flourish at the end.